

**WETLAND DELINEATION REPORT
FOR THE PROPOSED
SOUTH SACRAMENTO POWER PLANT AT RANCHO SECO
SACRAMENTO COUNTY, CALIFORNIA**

Prepared for:

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EXECUTIVE SUMMARY

This report presents the results of a delineation of waters of United States, including wetlands subject to the provisions of Section 404 of the Clean Water Act for a proposed natural gas-fired power plant site. The Power Plant would be adjacent to the existing decommissioned Rancho Seco Nuclear Power Plant in southern Sacramento County, California. The goal of the field survey was to identify wetland areas in the vicinity of the proposed plant. A portion of the approximately 220-acre study area would be developed for the proposed Power Plant. In summary, a total of 16.17 acres of waters of the United States (including 11.62 acres of jurisdictional wetlands and 4.55 acres of other waters of the United States) were identified within the study area. Jurisdictional acreages presented in this report are subject to verification by the U.S. Army Corps of Engineers, Sacramento District (Corps).

A description of the waters of the United States, including wetlands is provided in the Finding and Results section of this report. The locations of waters of the United States are shown on a blue-line aerial photograph (scale 1 inch = 200 feet) accompanying this report (Exhibit 1). Table 1 summarizes the habitat types and acreages of waters of the United States in the study area.

Table 1. Acreages of Jurisdictional Habitats in the Study Area

Habitat Type	Acreage Within the Study Area
Seasonal wetland/degraded seasonal wetland	3.35
Seasonal swale	1.71
Vernal pool	0.50
Historic vernal pool remnant	0.77
Seasonal marsh	0.70
Placer tailings/riparian wetland mosaic	4.59
Sub-total wetlands	11.62
Seasonal stream	1.49
Perennial stream	2.43
Open water	0.63
Sub-total other waters of the United States	4.55
Total	16.17 acres

INTRODUCTION

Davis Environmental Consulting was retained by the Sacramento Municipal Utility District (SMUD) to conduct a wetland delineation and prepare a wetland delineation report for SMUD's proposed South Sacramento Power Plant. This report presents the results of a delineation of waters of the United States, including wetlands, for approximately 220-acres in the vicinity of the proposed Power Plant site. The purpose of this delineation is to assist SMUD in locating their facility and minimizing impacts on waters of the United States, including wetlands.

Project Location

The South Sacramento Power Plant site is located adjacent to the existing, decommissioned Rancho Seco nuclear power plant owned by SMUD. It is located south of Highway 104 in southern Sacramento County (Figure 1). It is in Township 6 North, Range 8 East, Section 29 M.D. B. & M (Figure 2). The project area is south of the existing decommissioned nuclear power plant, west of Rancho Seco Park.

Project Description

The South Sacramento Power Plant is a proposed natural gas-fired power plant that would be constructed at Rancho Seco. It would be constructed within the study area and would be designed to minimize impacts to waters of the United States on the site.

General Site Conditions

The study area is characterized by gently rolling topography dominated by non-native annual grassland. The eastern half of the site is used for cattle grazing, resulting in a cover of low-growing grasses and forbs. The western half of the site is not currently being grazed and is dominated by tall grasses and forbs. The area immediately adjacent to the existing nuclear power plant has been extremely altered by past human disturbance and earth-moving activities.

Common plant species on the site include soft chess (*Bromus mollis*), curly dock (*Rumex crispus*), hare barley (*Hordeum leporinum*), lupine (*Lupinus* sp.), plantain (*Plantago lanceolata*), poppy (*Escholtzia californica*), brodiaea (*Tritelia laxa*), wall lettuce (*Lactuca serriola*), fescue (*Vulpia bromoides*), geranium (*Geranium dissectum*), medusahead (*Taenatherum caput medusa*), and clover (*Trifolium* sp.).

Soils on the site are mapped primarily as Urban Land (map unit 227). Other soils mapped at the site include Corning Complex 0 to 8 percent slopes (map unit 125), Hadselville-Pentz Complex 2 to 30 percent slopes (map unit 156), Redding Gravelly Loam 0 to 8 percent (map unit 198). The Urban Land and Hadselville-Pentz Complex map units are not listed as hydric soils on the Sacramento County hydric soils list. Depressional areas within the Corning Complex and Redding Gravelly map units are mapped as hydric inclusions on the Sacramento County hydric soils list. (Natural Resources Conservation Service. 1993. Soil Survey of Sacramento County. U.S. Government Printing Office. Washington D.C.)

Hydrology at the site is generally due to rainfall and runoff from the existing power plant development to the north. A perennial stream runs from east to west across the middle of the study area.

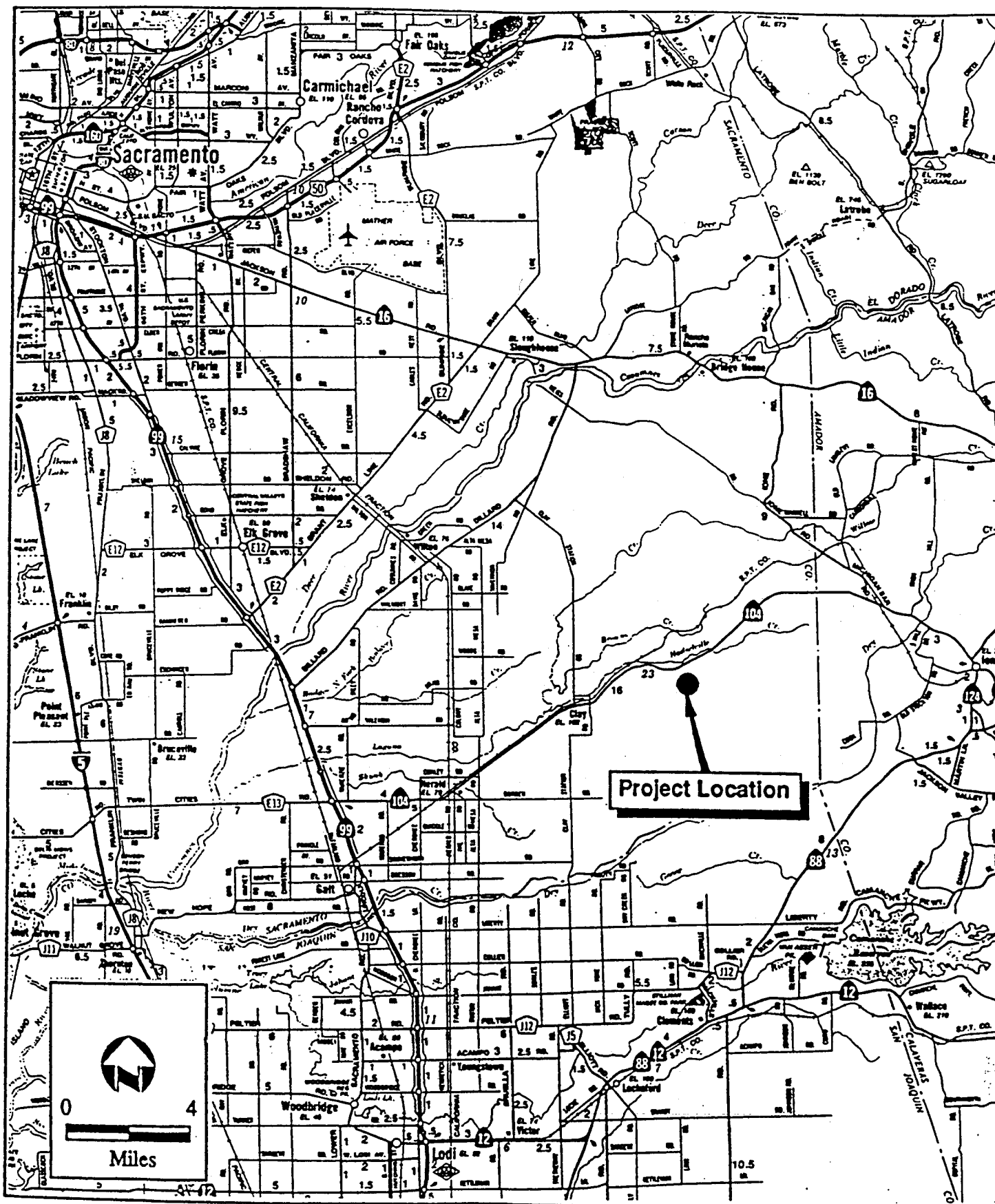
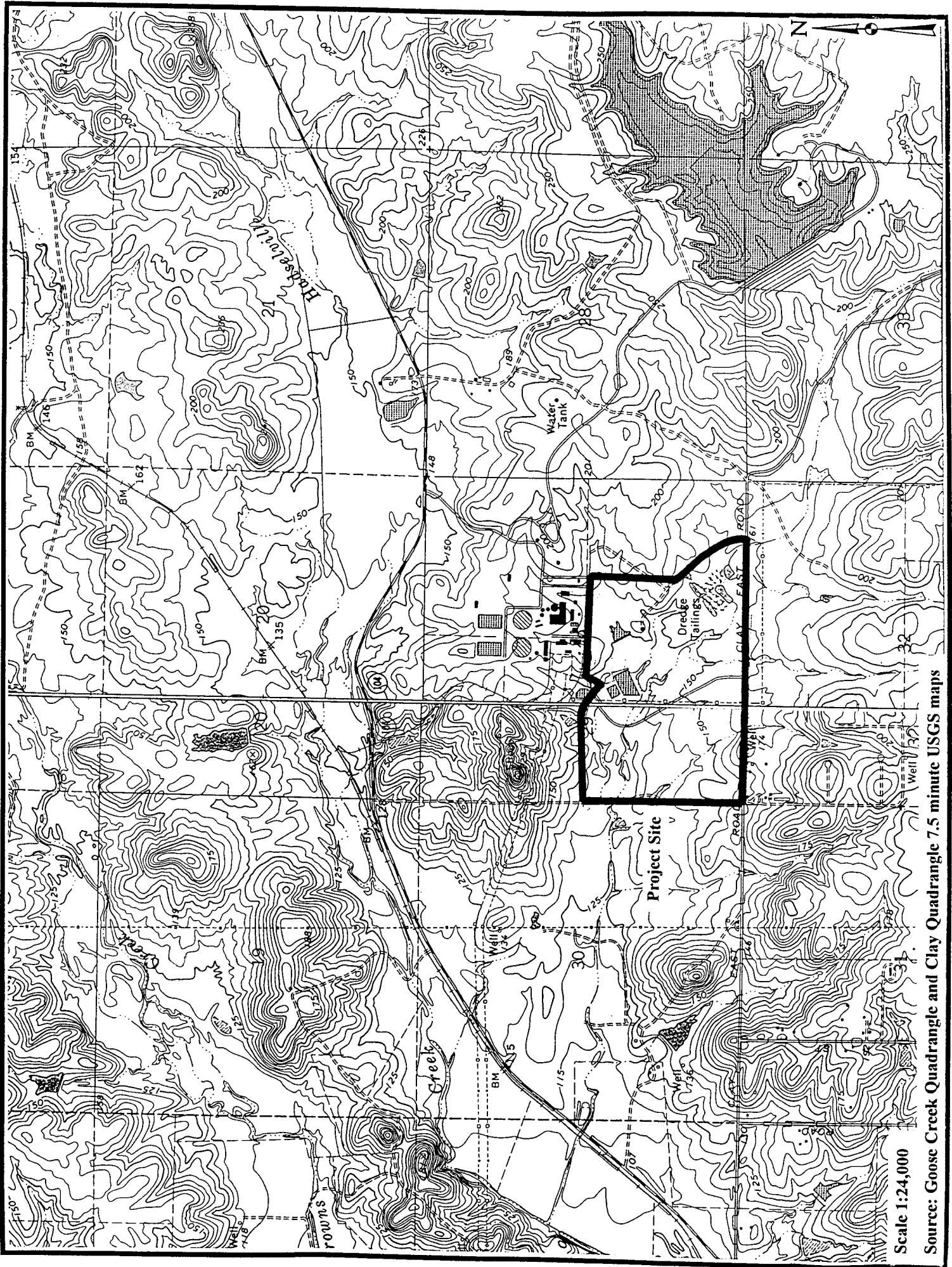


Figure 1. Regional Location



Scale 1:24,000

Source: Goose Creek Quadrangle and Clay Quadrangle 7.5 minute USGS maps

Methods

Field studies were conducted on April 6 and 10, 2000. The Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) was used to determine wetland boundaries and the U.S. Army Corps of Engineers' Regulations (33 CFR 328) were used to identify the limits of waters of the United States at the site.

The boundaries of all waters of the United States, including wetlands were mapped in the field onto a 1 inch = 200 feet, black and white, aerial photograph taken March 30, 1995 (Exhibit 1).

Findings and Results

The landscape position, vegetative composition, and hydrologic indicators most readily define wetlands on the site. Seasonal wetlands in the northern part of the site, adjacent to the existing power plant, have been heavily disturbed by past human activity and grading. Copies of wetland delineation data sheets completed for representative wetlands and adjacent uplands on the site are attached (Appendix A).

Visual inspection of the soil showed hydric soil characteristics within the wetland boundaries. Generally, wetland soils displayed soil colors of 10YR 3/2 and 10YR 4/2 with oxidation mottles of 7.5YR 4/3, oxidized root rhizospheres, and/or manganese concretions. Upland soils displayed similar soil colors but did not have evidence of oxidized root channels or manganese concretions.

The most common hydrologic indicators within wetland boundaries are algal matting, matted vegetation, and deep cattle hoof prints made in the mud when the soils were saturated. These hydrologic parameters strongly correlate with the presence of wetland vegetation and do not persist into upland areas.

The types of Waters of the United States, including wetlands, identified on the site include seasonal wetland/degraded seasonal wetland, seasonal swale, vernal pool, historic vernal pool remnant, seasonal marsh, placer tailing/riparian wetland mosaic, seasonal stream, perennial stream, and open water. Table 2 lists each individual water of the United States delineated in the study area and its acreage.

Table 2. Wetlands and Other Waters of the United States Delineated in the Study Area

Habitat Type	Acreage Within the Study Area
Seasonal wetland/degraded seasonal wetland	
SW1	0.114
SW2	0.170
SW3	0.038

SW4	0.270
SW5	0.043
SW6	0.370
SW7	0.014
SW8	0.002
SW9	0.007
SW10	0.033
SW11	0.039
SW12	0.027
SW/SS13	0.038
SW14	0.085
SW15	0.028
SW16	0.043
SW17	0.061
SW18	0.114
SW19	0.042
DSW1	1.224
DSW2	0.228
DSW3	0.349
Sub-total seasonal wetland/degraded seasonal wetland	3.35
Seasonal swale	
SS1	0.754
SS2	0.466
SS3	0.197
SS4	0.039
SS5	0.010
SS6	0.041
SS7	0.207
Sub-total seasonal swale	1.71
Vernal pool	
VP1	0.085
VP2	0.005
VP3	0.085
VP4	0.060
VP5	0.057
VP6	0.023
VP7	0.009
VP8	0.021
VP9	0.007
VP10	0.123
VP11	0.023
Sub-total vernal pool	0.50
Historic vernal pool remnant	
HVP1	0.629
HVP2	0.014
HVP3	0.041
HVP4	0.069
HVP5	0.014
HVP6	0.007
Sub-total historic vernal pool remnant	0.77

Seasonal marsh	
SM1	0.398
SM2	0.002
SM3	0.299
Sub-total seasonal marsh	0.70
Placer tailings/riparian wetland mosaic	
PT1	3.387
PT2	0.071
PT3	0.128
PT4	0.669
PT5	0.009
PT6	0.018
PT7	0.005
PT8	0.100
PT9	0.085
PT10	0.114
Sub-total placer tailings/riparian wetland mosaic	4.59
Seasonal stream reach	
S1	0.005
S4	0.012
S5	0.140
S6	0.002
S7	0.034
S8	0.063
S9	0.045
S10	0.084
S11	0.383
S12	0.025
S13	0.080
S14	0.004
S15	0.002
S16	0.030
S17	0.029
S18	0.006
S19	0.092
S20	0.002
S21	0.001
S22	0.095
S23	0.038
S24	0.024
S25	0.239
S26	0.014
S27	0.022
S28	0.022
Sub-total seasonal stream reach	1.49
Perennial stream reach	
S2	0.304
S3	2.125
Sub-total perennial stream reach	2.43

Open water	
OW1	0.043
OW2	0.028
OW3	0.555
Sub-total open water	0.63
Total	16.17 acres

Wetlands

Seasonal Wetland/Degraded Seasonal Wetland. A total of 19 seasonal wetlands (1.54 acres) and 3 degraded seasonal wetlands (1.81 acres) were delineated within the study area. Vegetation, soils, and hydrology within the seasonal wetlands and degraded seasonal wetlands within the study area were similar, but the degraded seasonal wetlands have been disturbed by past grading activities and vegetation is sparse in these areas.

Seasonal wetlands and degraded seasonal wetlands within the study area were dominated by hydrophytic vegetation including wild rye (*Lolium multiflorum*), spike rush (*Eleocharis macrostachya*), coyote thistle (*Eryngium vaseyi*), peppergrass (*Lepidium latifolium*), curly dock (*Rumex crispus*), and velvet grass (*Holcus lanatus*).

Soils in seasonal wetlands and degraded seasonal wetlands were typically 10 YR 3/2 with 7.5 YR 4/3 mottles. These colors are typical of hydric soils.

Seasonal wetlands and degraded seasonal wetlands at the project site are closed basin systems that receive water from direct precipitation. They are located within low topographic positions and exhibited positive wetland hydrology indicators including algal matting, saturation within the upper 12 inches of the soil profile, and in the eastern half of the study area deep cattle hoof prints.

Seasonal Swale. A total of 7 seasonal swales (1.71 acre) were delineated within the study area. Vegetation and soils of the seasonal swales within the study area were similar to that of seasonal wetlands. Hydrology however between seasonal swales and seasonal wetlands is different.

Seasonal swales within the study area receive a majority of their water from direct precipitation but also receive some overland flow. Seasonal swales are not closed basin systems, rather water flows through them much like a channel. Like seasonal wetlands, they are located within low topographic positions and exhibited positive wetland hydrology indicators including algal matting, saturation within the upper 12 inches of the soil profile, and in the eastern half of the study area deep cattle hoof prints.

Seasonal swales within the study area were dominated by hydrophytic vegetation including wild rye, peppergrass, curly dock, and velvet grass. Several of the seasonal swales were dominated by wild rye alone.

Soils found in seasonal swales were typically 10 YR 3/2 with 7.5 YR 4/3 mottles. These colors are typical of hydric soils.

Vernal Pool. A total of 11 vernal pools (0.50 acre), a specific type of seasonal wetland, were delineated within the study area. Soils and hydrology within vernal pools and seasonal wetlands at the study area were similar. Vernal pools support distinctive biota.

Vernal pools within the study area supported hydrophytic vegetation including spike rush, popcorn flower (*Plagiobothrys stipitatus* var. *micranthus*), downingia (*Downingia ornatissima*), wooly marbles (*Psilocarpus brevissimus*), and coyote thistle.

Soils in vernal pools were typically 10 YR 3/2 with high chroma mottles. This color is typical of hydric soils within vernal pools.

Vernal pools are closed basin systems that receive water from direct precipitation. They are located within low topographic positions and exhibited positive wetland hydrology indicators including algal matting, and in some areas saturation within the upper 12 inches of the soil profile at the time of field surveys.

Historic Vernal Pool Remnant. A total of 6 historic vernal pool remnant areas (0.77 acre) were identified at the site. The historic vernal pool remnant areas are primarily unvegetated and are extremely disturbed. Sparse vegetation consisting primarily of coyote thistle was found in the historic vernal pool remnant areas.

Soils in historic vernal pool remnant areas had expansion-contraction cracks and had colors similar to vernal pool soil colors.

Historic vernal pool remnant areas were found in closed basin systems that receive water from direct precipitation. They are located within low topographic positions and exhibited positive wetland hydrology indicators including shallow ponding in the deepest portion of the pools at the time of field surveys.

Seasonal Marsh. A total of 3 seasonal marsh areas (0.70 acre) were delineated within the study area. The seasonal marsh areas within the study area were dominated by hydrophytic vegetation including curly dock, wiregrass, manna grass (*Glyceria diclinata*), spike rush, water primrose (*Ludwigia peploides*), and aquatic buttercup (*Ranunculus bonariensis*).

The seasonal marsh areas were ponded at the time of the field survey and are hydrologically connected to either seasonal or perennial streams. Soil in the seasonal marsh was assumed to be hydric based on an aquic moisture regime. The seasonal marsh areas are located within low topographic position and were ponded.

Placer Tailing/Riparian Wetland Mosaic. In the southeast portion of the site a historic placer tailing area supports open water and wetland vegetation in a mosaic with placer tailings that was too intermingled that it could not be mapped separately. A total of 10 areas (4.59 acres) were mapped as placer tailing/riparian wetland mosaic within the study area. Vegetation in the placer tailing/riparian wetland complex is dominated by Fremont's cottonwood (*Populus fremontii*).

The placer tailing/riparian wetland mosaic was ponded at the time of the field survey and is hydrologically connected to a perennial stream. Soil in the riparian wetland was assumed to be hydric based on an aquic moisture regime. The riparian wetland mosaic area was ponded at the time of the survey.

Other Waters of the United States

Seasonal Creek. Several seasonal creeks ranging from 1 to 20 feet wide traverse the site (Exhibit 1). Many of the seasonal creeks have intermittent bed and bank and have seasonal swale vegetation along their banks. Vegetation along the banks of these creeks consists primarily of wild rye, occasionally in association with popcorn flower (*Plagiobothrys stipitatus*), spike rush, and scattered monkeyflower (*Mimulus guttatus*). Wetland vegetation adjacent to the seasonal creek channels was mapped as part of the creek because the creek and adjacent wetland function as one habitat. A total of 1.49 acres of seasonal creek habitat was delineated at the project site.

Perennial Creek. A well-defined creek channel that varies in width from 8 to 30 feet, with a distinct bed and eroded banks meanders from the placer tailings/riparian wetland area in the southeast side of the site toward the northwest portion of the site. In the northwest portion of the site, another perennial creek, varying in width from 15 to 25 feet, joins the larger creek. The second perennial creek appears to receive water from the decommissioned power plant (Exhibit 1). Vegetation along the banks of these creeks consists primarily of umbrella sedge (*Cyperus eragrostis*), Dallas grass (*Paspalum dilatatum*), rush (*Juncus balticus*), and monkeyflower. Wetland vegetation within the perennial creek channels was mapped as part of the creek because the wetlands occur within the limits of ordinary high water.

Pond turtles and fish were seen in the perennial creek in the western portion of the study area. A total of 2.43 acres of perennial creek habitat was delineated at the project site.

Open Water. A total of 3 areas (0.63 acre) within the study area were mapped as open water. Open water areas consisted of unvegetated pooled areas, likely constructed for cattle stock ponds, and open water areas within the stream channel. Open water areas had ordinary high water marks such as algal lines and bench lines on their banks.

Appendix A. Representative Data Sheets

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Davis / Macmillan Date 4/6/00
 Project Merchant Power Plant State CA County Sacramento
 Wetland Type and Sample Number Seasonal Wetland
 Site Condition _____

VEGETATION

Dominant Plant Species	Indicator Status	Associated Plants
<u>Rumex crispus</u>	<u>FACW-</u>	<u>Eriogonum vaseyi</u>
<u>Eriogonum macrostachys</u>	<u>obl</u>	<u>Lepidium</u>
<u>Lactuca serriola</u>	<u>FACN</u>	<u>Holcus lanatus</u>
<u>Lolium perenne</u>	<u>FAC*</u>	

Hydrophytic Vegetation? Yes X No _____
 Rationale: Dominated by hydrophytic vegetation

SOILS

Is soil on hydric soils list? Yes X No _____ Unknown _____
 Is the soil Mottled? Yes X No _____ Gleyed? Yes X No X
 Soil Matrix Color 10YR 3/2 Mottle Color 7.5 YR 4/3
 Soil Texture _____
 Other hydric soil indicators _____

Hydric Soil? Yes X No _____ Soil Sample Depth 1/6 inches
 Rationale: Low chroma matrix w/ mottles

HYDROLOGY

Indundated? Yes _____ No X Depth of Standing Water _____
 Saturated? Yes _____ No X Depth to Water _____
 Other evidence of indundation or saturation: Lots of algal matting

Wetland Hydrology? Yes X No _____
 Rationale: Evidence of prolonged inundation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes X No _____
 Rationale: Receives drainage from adjacent vineyard, drains back onto adjacent property perimeter

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Davis Date 4/10/00
 Project Merchant Power Plant State CA County Sacramento
 Wetland Type and Sample Number seasonal wetland / adjacent upland
 Site Condition _____

<u>VEGETATION</u>		
Dominant Plant Species	Indicator Status	Associated Plants
<u>Bromus mollis</u>	<u>FACU-</u>	<u>Brassica campestris</u>
<u>Hordeum jubatum</u>	<u>NI</u>	<u>Ullina sp.</u>
<u>Avena fatua</u>	<u>UPL</u>	

Hydrophytic Vegetation? Yes _____ No X
 Rationale: Not dominated by hydrophytes

0-3"
3-8"

SOILS
 Is soil on hydric soils list? Yes _____ No X Unknown _____
 Is the soil Mottled? Yes _____ No X Gleyed? Yes _____ No _____
 Soil Matrix Color 1.5YR 3/2 / 4R 4/3 Mottle Color 2.5YR 2/2
 Soil Texture 7.5
 Other hydric soil indicators _____

Hydric Soil? Yes _____ No X Soil Sample Depth 8"
 Rationale: Mixed matrix color - non-hydric

HYDROLOGY
 Indundated? Yes _____ No X Depth of Standing Water _____
 Saturated? Yes _____ No X Depth to Water _____
 Other evidence of indundation or saturation: _____

Wetland Hydrology? Yes _____ No X
 Rationale: _____

JURISDICTIONAL DETERMINATION
 Is the community a wetland? Yes _____ No X
 Rationale: No evidence of hydrology; no hydrophytic plants; No hydric soil

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Dans / Macmillan Date 4/6/00
 Project Merchant Power Plant State CA County Sacto.
 Wetland Type and Sample Number seasonal swale
 Site Condition _____

VEGETATION

Dominant Plant Species	Indicator Status	Associated Plants
<u>Salicornia subterminalis</u>	<u>FAC</u>	<u>Salicornia subterminalis</u>
<u>Spartina patens</u>	<u>FACW</u>	<u>Spartina patens</u>
<u>Rumex crispus</u>	<u>FACW</u>	<u>Glycerhiza</u>
<u>Poa annua</u>	<u>FAC</u>	

Hydrophytic Vegetation? Yes X No _____
 Rationale: Dominated by hydrophytic plants

SOILS

Is soil on hydric soils list? Yes _____ No X Unknown _____
 Is the soil Mottled? Yes _____ No _____ Gleyed? Yes _____ No _____
 Soil Matrix Color 10YR 3/2 Mottle Color 7.5YR 4/3
 Soil Texture _____
 Other hydric soil indicators _____

Hydric Soil? Yes X No _____ Soil Sample Depth _____
 Rationale: Low chroma color with mottles

HYDROLOGY

Indundated? Yes _____ No X Depth of Standing Water _____
 Saturated? Yes _____ No X Depth to Water _____
 Other evidence of inundation or saturation: Woot prints
Low topographic position / drainage area
 Wetland Hydrology? Yes X No _____
 Rationale: Evidence of prolonged saturation / inundation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes X No _____
 Rationale: Hydrophytic Plants; hydric soils & hydrology
all are present

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators DAVIS Date 4/10/00
 Project Merchant Power Plant State CA County Sacramento
 Wetland Type and Sample Number Topographic Depression in western
 Site Condition portion of site

VEGETATION

Dominant Plant Species	Indicator Status	Associated Plants
<u>Leontodon leyseri</u>	<u>FACU</u>	
<u>Spergularia</u>		
<u>Pennis setacea</u>	<u>FAC*</u>	

Hydrophytic Vegetation? Yes No X
 Rationale: Not dominated by hydrophytic plants

SOILS

Is soil on hydric soils list? Yes No Unknown
 Is the soil Mottled? Yes X No Gleyed? Yes No X
 Soil Matrix Color 10YR 7.5/2 Mottle Color 7.5YR 3/3
 Soil Texture Gravelly clay loam
 Other hydric soil indicators

Hydric Soil? Yes X No Soil Sample Depth 10"
 Rationale: Low chroma color with mottles

HYDROLOGY

Indundated? Yes No X Depth of Standing Water
 Saturated? Yes No X Depth to Water
 Other evidence of indundation or saturation: None

Wetland Hydrology? Yes No X
 Rationale: No evidence of prolonged inundation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes No X
 Rationale: Plants are not hydrophytic / No clear evidence of hydrology

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Davis / Macmillan Date 4/6/00
 Project Power Plant State _____ County SACD
 Wetland Type and Sample Number Vernal Pool
 Site Condition _____

VEGETATION

Dominant Plant Species Indicator Status

Associated Plants

Eleocharis macrostachya OBL
Plagiodiathra spicata FAU
Drosera rotundifolia OBL
Psilocarphus brevis OBL

Elymus virginicus
Vulpia bromoides
Hieracium hystrix

Hydrophytic Vegetation? Yes X No _____
 Rationale: Dominated by hydrophytic vegetation

SOILS

Is soil on hydric soils list? Yes _____ No ✓ Unknown _____
 Is the soil Mottled? Yes X No _____ Gleyed? Yes _____ No _____
 Soil Matrix Color 10YR 3/2 Mottle Color 4/6
 Soil Texture gravel in surface
 Other hydric soil indicators _____

Hydric Soil? Yes ✓ No _____ Soil Sample Depth _____
 Rationale: Low chroma color w/ mottles

HYDROLOGY

Indundated? Yes _____ No ✓ Depth of Standing Water _____
 Saturated? Yes _____ No ✓ Depth to Water _____
 Other evidence of inundation or saturation: _____

Algal matting on surface
 Wetland Hydrology? Yes _____ No _____
 Rationale: evidence of prolonged inundation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes X No _____
 Rationale: Wetland Plants, hydric soil characteristics and evidence of hydrology

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Davis/Macmillan Date 4/6/00
 Project _____ State _____ County _____
 Wetland Type and Sample Number Upland Adjacent to Vernal Pool
 Site Condition _____

VEGETATION

Dominant Plant Species	Indicator Status	Associated Plants
<u>Vulpia bromoides</u>	<u>FACW</u>	<u>BRASSICA</u>
<u>Bromus mollis</u>	<u>UPL</u>	<u>ARENA</u>
<u>Leontodon leucostictus</u>	<u>FACU</u>	<u>LOLIUM</u>

Hydrophytic Vegetation? Yes _____ No _____
 Rationale: site not dominated by hydrophytic veg.

SOILS

Is soil on hydric soils list? Yes _____ No X Unknown _____
 Is the soil Mottled? Yes _____ No X Gleyed? Yes _____ No _____
 Soil Matrix Color 10YR 3/2 Mottle Color _____
 Soil Texture _____
 Other hydric soil indicators _____

Hydric Soil? Yes _____ No _____ Soil Sample Depth _____
 Rationale: No evidence of hydric soil characteristics

HYDROLOGY

Indundated? Yes _____ No X Depth of Standing Water _____
 Saturated? Yes _____ No X Depth to Water _____
 Other evidence of indundation or saturation: None

Wetland Hydrology? Yes _____ No _____
 Rationale: No evidence of prolonged inundation or saturation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes _____ No X
 Rationale: _____

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Davis/Maxmillan Date _____
 Project _____ State _____ County _____
 Wetland Type and Sample Number Histone/ Disturbed Vernal Pool
 Site Condition _____

VEGETATION

Dominant Plant Species	Indicator Status	Associated Plants
<u>Sparganium angustifolium</u>		
<u>- Eryngium yuccifolium</u>	<u>EACW</u>	

Hydrophytic Vegetation? Yes X No _____
 Rationale: Dominant species is a hydrophyte

SOILS

Is soil on hydric soils list? Yes _____ No _____ Unknown _____
 Is the soil Mottled? Yes _____ No _____ Gleyed? Yes _____ No _____
 Soil Matrix Color _____ Mottle Color _____
 Soil Texture _____
 Other hydric soil indicators Expansion cracks - deposition of silt at surface
 Hydric Soil? Yes _____ No _____ Soil Sample Depth _____
 Rationale: _____

(partial) HYDROLOGY

Indundated? Yes X No _____ Depth of Standing Water < 1"
 Saturated? Yes X No _____ Depth to Water _____
 Other evidence of inundation or saturation: cracked surface; low topographic depression / some ponding
 Wetland Hydrology? Yes _____ No _____
 Rationale: Evidence of ponding

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes X No _____
 Rationale: Disturbed from historic activity at site -

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators Davis Date 4/10/00
 Project Power Plant Site State CA County Sacto
 Wetland Type and Sample Number Seasonal Marsh
 Site Condition _____

VEGETATION

Dominant Plant Species Indicator Status

Associated Plants

Eleocharis macrostachya OBL
Glyceria OBL
Juncus effusus FACW
Ranunculus boricariensis OBL

curly dock
Indragira (in water)

Hydrophytic Vegetation? Yes ☒ No

Rationale: 100% dominated by wetland species

SOILS

Is soil on hydric soils list? Yes ☐ No ☒ Unknown

Is the soil Mottled? Yes N/A No ☐ Gleyed? Yes ☐ No ☐

Soil Matrix Color _____ Mottle Color _____

Soil Texture _____

Other hydric soil indicators Assumed hydric soil due to

saturation & surface inundation

Hydric Soil? Yes ☐ No ☐ Soil Sample Depth _____

Rationale: _____

HYDROLOGY

Indundated? Yes ☒ No ☐ Depth of Standing Water _____

Saturated? Yes ☒ No ☐ Depth to Water _____

Other evidence of inundation or saturation: Low, depressional

drainage area

Wetland Hydrology? Yes ☒ No ☐

Rationale: Evidence of prolonged inundation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes ☒ No ☐

Rationale: All three wetland parameters met

ROUTINE WETLAND DELINEATION DATA FORM

Field Investigators DAVIS Date 4/10/00
 Project Power Plant Site State CA County Sacto
 Wetland Type and Sample Number Placer Tailing/Riparian Wetland
 Site Condition
Historte Placer Mining Area

VEGETATION

Dominant Plant Species	Indicator Status	Associated Plants
<u>Populus fremontii</u>	<u>FACW</u>	
<u>Salix spp. (goodingii)</u>	<u>DBL</u>	
<u>Juncus effusus</u>	<u>DBL</u>	
<u>Lotus corniculata</u>	<u>FACW</u>	

Hydrophytic Vegetation? Yes X No
 Rationale: Dominated 100% by hydrophytic plants

SOILS

Is soil on hydric soils list? Yes ~~X~~ No ~~X~~ Unknown X
 Is the soil Mottled? Yes _____ No _____ Gleyed? Yes _____ No _____
 Soil Matrix Color _____ Mottle Color _____
 Soil Texture _____
 Other hydric soil indicators Assume due to inundation
cobbles at surface
 Hydric Soil? Yes _____ No _____ Soil Sample Depth _____
 Rationale: Aquic moisture regime

HYDROLOGY

Indundated? Yes X No _____ Depth of Standing Water Up to 3 ft.
 Saturated? Yes X No _____ Depth to Water _____
 Other evidence of indundation or saturation: _____

Wetland Hydrology? Yes X No
 Rationale: Evidence of prolonged inundation

JURISDICTIONAL DETERMINATION

Is the community a wetland? Yes X No
 Rationale: Dominated by hydrophytic plants; wetland hydrology present and aquic moisture regime